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**(19) AUSTRALIAN PATENT OFFICE      (10) Acceptance No. 580409**

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**RACING SULKY**

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(71) Applicant(s)  
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(72) Inventor(s)  
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(74) Attorney or Agent  
**SPRUSON & FERGUSON**

(56) Prior Art Documents  
**38677/68 B62C 1/08**  
**536485 60748/80 B62C 1/08**  
**71991/81 B62 1/08**

(57) Claim

1. A horse drawn sulky comprising:

a longitudinal frame having a pair of forwardly extending shafts adapted for the attachment of said horse positioned therebetween, wherein said frame is generally symmetrical about a longitudinal centre line thereof;

and a pair of wheels attached rearwardly of said frame, having generally parallel axes of rotation, and being unequally transversely spaced from said longitudinal centre line.

FORM 1

SPRUSON & FERGUSON

57240/86

APPLICATION ACCEPTED AND AMENDMENTS  
ALLOWED 3-11-88

COMMONWEALTH OF AUSTRALIA

PATENTS ACT 1952

APPLICATION FOR A STANDARD PATENT

We, R. J. WALSH & SONS PTY LTD, of 122 Gow Street, Padstow, New South Wales, 2211, Australia, hereby apply for the grant of a standard patent for an invention entitled:

RACING SULKY

which is described in the accompanying provisional specification.

Our address for service is:-

Spruson & Ferguson  
Patent Attorneys  
Level 33 St Martins Tower  
31 Market Street  
Sydney New South Wales Australia

LODGED AT SUB-OFFICE

4 JUL 1985

Sydney

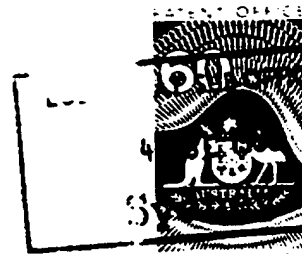
DATED this FOURTH day of JULY 1985

R. J. WALSH & SONS PTY LTD

By:

*M. J. Anderson*

Registered Patent Attorney



TO: THE COMMISSIONER OF PATENTS  
AUSTRALIA

FEE STAMP TO VALUE OF	
\$ 60	ATTACHED
MAIL OFFICER: <i>[Signature]</i>	

COMMONWEALTH OF AUSTRALIA

PATENTS ACT 1952

DECLARATION IN SUPPORT OF AN  
APPLICATION FOR PATENT

In support of the Application made by R. J. WALSH & SONS PTY LTD  
for a patent for an invention entitled:

RACING SULKY

*JAMES STEPHEN WALSH*

[full name of declarant(s)]

of *11 YANKO CLOSE*  
[full address of declarant(s) - not post office box]

*WORONORA N.S.W. 2232* Australia

do solemnly and sincerely declare as follows:

1. I am/~~we~~ are authorised by R. J. WALSH & SONS PTY LTD the  
applicant for the patent to make this declaration on its  
behalf.

2. *JAMES STEPHEN WALSH*  
[full name of inventor(s)]

of *11 YANKO CLOSE*  
[full address of inventor(s) - not post office box]

*WORONORA 2232* Australia

is(~~are~~) the actual inventor(s) of the invention and the facts  
upon which the applicant is entitled to make the application are  
as follows:

The said applicant is the assignee of the actual  
inventor(s)

DECLARED at *PARSONS* this *TWENTY SEVENTH* day of *JUNE*, 19 *85*

*[Signature]*  
Signatur of D clarant(s)

TO: THE COMMISSIONER OF PATENTS

LMS/0136F

## COMMONWEALTH OF AUSTRALIA

## PATENTS ACT 1952

COMPLETE SPECIFICATION

(ORIGINAL)

57240/86

## FOR OFFICE USE:

Class Int. Class

Application Number:

PH 1323

Lodged:

4 July 1985

Accepted:  
Published:

Priority:

Related Art:

Name of Applicant:

R.J. WALSH &amp; SONS PTY LTD

Address of Applicant:

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Actual Inventor:

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Spruson & Ferguson, Patent Attorneys,  
Level 33 St Martins Tower, 31 Market  
Street, Sydney,  
New South Wales, 2000, Australia

Complete Specification for the invention entitled:

RACING SULKY

The following statement is a full description of this invention,  
including the best method of performing it known to me/us

\$120

This invention relates to horse drawn sulkies, in particular ones developed for racing.

Sulky racing is well known and the sulkies themselves have developed over the years so that today they perform quite well. However, as with any device, there is always possible room for improvement.

Sulkies of two distinct dimensional proportions have gained prominence, the short wide US type and the longer narrower <sup>AUS</sup>~~US~~ NZ type. By shortening the sulky the driver is placed closer to the horse which results in ~~improved~~ improved aerodynamics of the combined horse-driver. This means less drag and greater speed. The disadvantage is that the wheelbase has to be increased in order to prevent the horse kicking the sulky wheel while turning and the horse must therefore run further <sup>from</sup> ~~for~~ the rail and hence a further distance around each curve. Typically the US type sulky will be around 1/2 metre wider than an <sup>AUS</sup>~~US~~ NZ sulky which means the extra distance run is quite significant.

The sulky of the present invention provides improvement over the prior art firstly because the sulky can be made smaller and lighter with minimum aerodynamic drag compared to the prior art sulkies. This is because for any given minimum width a sulky according to the present invention can be made shorter than the prior art devices. Secondly, the horse drawing a sulky in accordance with the present invention maintains the low drag of the US type sulkies but only needs to run a shorter distance when traversing a circular path. Thirdly, in the case of Australian and New Zealand horses this sulky offers a speed advantage of a short wide cart without the horse having to be



trained to run significantly further out from the rail than he is used to doing.

In one broad form the present invention provides a horse drawn sulky comprising:

5 a longitudinal frame having a pair of forwardly extending shafts adapted for the attachment of said horse positioned therebetween, wherein said frame is generally symmetrical about a longitudinal centre line thereof;

10 and a pair of wheels attached rearwardly of said frame, having generally parallel axes of rotation, and being unequally transversely spaced from said longitudinal centre line.

By way of example only, one preferred form of the present invention will now be described with reference to the drawings in which:

Fig. 1 is a plan view of an embodiment of the invention; and

Fig. 2 is a rear view of the embodiment shown in Fig. 1.

15 The sulky 1 consists basically of a pair of shafts 2 which extend one either side of the sulky, longitudinally forwardly in a generally symmetrical manner about their centre axis 4.

20 The sulky also includes a pair of wheels 3 which rotate about respective generally aligned transverse axes. The wheels 3 are symmetrical about an axis 5.

The two axes 4 and 5 are transversely spaced so that the general arrangement of the shafts 2 and wheels 3 is a symmetrical.

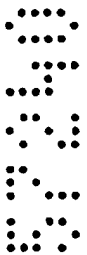
25 The depicted embodiment is developed for anti-clockwise rotation about a circular or elliptical race track. Clearly for clockwise rotation the protruding wheel 3 will be on the left hand side of the sulky.

The general construction of the sulky can be in accordance



with accepted construction principles and designs. For example, the sulky will normally include a seat 6 and foot supports 7 for location of the driver.

In some circumstances it might be considered advantageous to mount the wheels relative to the sulky in a manner to allow adjustment for both clockwise and anti-clockwise tracks.





The claims defining the invention are as follows:

1. A horse drawn sulky comprising:

a longitudinal frame having a pair of forwardly extending shafts adapted for the attachment of said horse positioned therebetween, wherein said frame is generally symmetrical about a longitudinal centre line thereof;

and a pair of wheels attached rearwardly of said frame, having generally parallel axes of rotation, and being unequally transversely spaced from said longitudinal centre line.

2. A horse drawn sulky as defined in claim 1 wherein the axes of rotation of said wheels are normal to said centre line.

3. A horse drawn sulky as defined in claims 1 or 2, wherein said sulky is adapted to selectively position said wheels between a first configuration wherein the wheel on a left side of said sulky is transversely spaced from said centre line a distance less than the transversely spaced distance of the wheel on a right side of said sulky, and a second configuration wherein the wheel on the left side is transversely spaced from said centre line a distance greater than the transversely spaced distance of the wheel on the right side.

~~4. A horse drawn sulky as defined in any one of claims 1, 2 or 3, wherein said axes of rotation of said wheels are generally aligned, and extend under a drivers seat of said sulky;~~

~~said drivers seat being mounted at a predetermined position on said frame;~~

~~and wherein said position and a centre point between said wheels are generally aligned with a longitudinal body centre line of said horse.~~

4. A horse drawn sulky as hereinbefore described with reference to, and as shown in the accompanying drawings.

DATED this SEVENTH day of JUNE 1988

R. J. WALSH & SONS PTY LTD

Patent Attorneys for the Applicant  
SPRUSON & FERGUSON



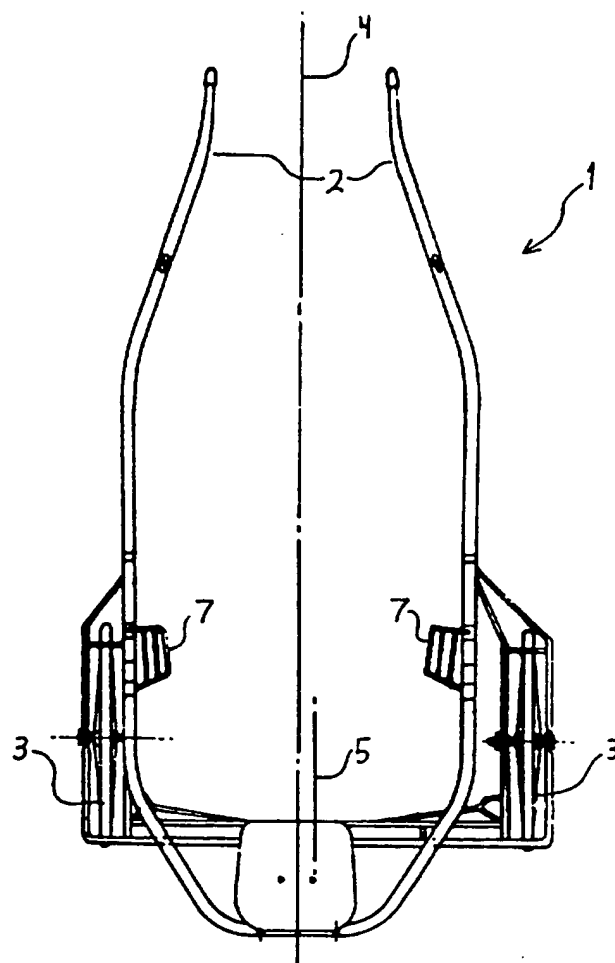


Fig 1

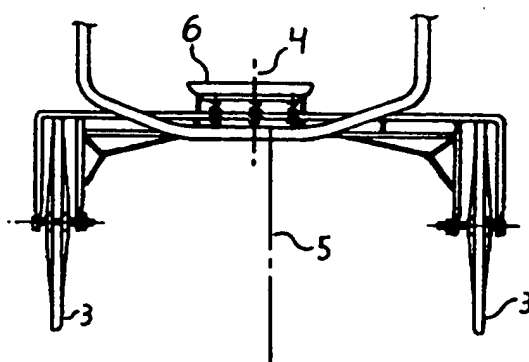


Fig 2